

## **INTRODUCTION**

A draft permit and fact sheet for the City of Alexandria Combined Sewer System (CSS), VPDES Permit #VA0087068, was transmitted to the U.S. EPA, Region 3, for review on March 15, 2013. Comments on the draft permit were provided by EPA on April 5, 2013. The draft permit materials initially provided to EPA for review were rescinded on April 9, 2013, in order to address the comments and concerns. This document provides DEQ responses to EPA's comments.

EPA offered a general comment on the draft permit as well as specific comments. The general comment is presented below:

"The general comment is the draft does not contain adequate milestones to execute the proposed work in a sequential verifiable manner. The permit also does not state that the completion of this work will result in the attainment of water quality standards. The draft allows four years nine months to conclude the LTCP update and a five year endpoint to deliver all infrastructure improvements. This would potentially allow all construction to be scheduled to conclude at the end of the fifth year of the permit. That is a long time to finish the LTCP update. There is a lot work proposed in this draft and we concluded that the lack of sequential progress milestones with specific interim dates will not be an effective way to schedule and complete this work."

The issues highlighted in the general comment are also raised in more detail in the specific comments. Below are DEQ responses to the specific comments offered by EPA on the draft permit. These responses serve to also address the general comment provided.

This document is structured to present each of the specific EPA comments followed by DEQ responses.

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### **EPA Comment:**

Pg. 1 of 8, Part I,A. Effluent Monitoring Requirements pg. footnote (2) states that outfall 002/003/004 shall comply with the TMDL bacteria waste loads, it should also state that the outfalls should comply with water quality standards.

### **DEQ Response:**

A Special Condition was added with this revision in Part I.E.13, Page 9 of the permit:

*The permittee may not discharge in excess any effluent limitation necessary to meet applicable water quality standards imposed under the State Water Control Law or the Clean Water Act.*

This reflects language found in the DC0021199, District of Columbia Water and Sewer Authority's NPDES permit, Part II, Section A.2.

**EPA Comment:**

Pg. 5 of 8, Part I E. 4. LTCPU – “The final LTCPU shall be submitted on or before 4 years from the effective date for DEQ review and **acceptance**.” This is far too long of a period of time to submit the LTCPU for review and approval after DEQ has commented on the LTCPU. Alexandria should only have no more than 1 year to submit the LTCPU. Four years is an excessive period of time. The word acceptance is inappropriate for permit language. The correct wording should be review and approve if the LTCPU meets **EPA LTCP Guidance (EPA-832-B-95-002)**.

**DEQ Response:**

The draft permit incorporates a regulatory framework which institutes a dual approach to developing and implementing CSO controls. The two approaches are complimentary and combine both short term and long term initiatives. The required short term programs will achieve CSO reductions during the permit term. The long term, and primary requirement, is the update of the Long Term Control Plan (LTCP) to ultimately achieve compliance with the Hunting Creek bacteria TMDL, including all applicable water quality standards. It is important to note that the near term programs and controls being instituted to achieve results during the permit term will also help to inform final decisions to be incorporated in the LTCPU.

Please refer to the Fact Sheet on Page 12, Section 21.d for a discussion of the regulatory requirements contained within the draft permit. A 3-year period for submittal of a final Update for approval has been proposed. This would allow for a value-engineered approach for mitigating the overflows while engaging all concerned parties; Fairfax County, the City of Alexandria, AlexRenew Enterprises and the public. It also recognizes that there will be significant development and implementation of CSO control actions and measures during this permit term. Specifically, (1) green infrastructure projects will be installed and evaluated to determine effectiveness and possible incorporation into the LTCPU; (2) a sewer separation project will commence, with the ultimate goal of disconnecting ninety-two (92) sanitary connections from the combined sewer system and rerouting the flows to a separate sanitary sewer system; and (3) outfall improvements will be required with the goal of capturing additional wet weather flow. Ultimately, the permittee must obtain a reduction in bacteria loading to be achieved either through at least a 5 million gallon annual reduction of stormwater entering the CSS, or the equivalent E. coli load reduction, during this permit term.

Note that the word ‘acceptance’ has been replaced with ‘approval’ in all locations where it appeared in the draft permit.

**EPA Comment:**

The draft permit states, “The LTCPU shall contain clearly defined, measurable milestones that will demonstrate compliance with the aforementioned TMDL as soon as practiced but no later than 31 December 2035.” Twenty two (22) years to meet the TMDL is far too long time, not to mention fully implementing the LTCPU. Also, the permit fails to state the Alexandria has to meet the water quality standards and meet LTCP requirements, as stated in the **EPA LTCP Guidance (EPA-832-B-95-002)**.

DEQ Response:

As discussed above, the regulatory approach incorporated into the draft permit includes both near term and long term requirements, each with associated goals and outcomes. DEQ supports this path forward as it both achieves results in the short term, while also ultimately ensuring compliance with water quality standards. Once finalized, the LTCPU will be required to be fully implemented in less than 20 years in order to meet the 2035 compliance date.

Please refer to the Fact Sheet, Page 12, Section 21.d for details on the LTCPU. It is staff's best professional judgement that this time frame is justified given the complex nature of this system. This is a highly developed, densely populated area presenting challenges that other systems across the nation face with legacy combined sewer systems. Integrated gray and green engineering projects require extensive engineering evaluation, planning and implementation, even for relatively small CSSs. Furthermore, this general regulatory approach to more fully incorporate green infrastructure and to integrate stormwater and wastewater controls is consistent with the approaches encouraged by EPA in memorandum's published in 2011(see Fact Sheet Attachments 15 & 16).

Finally, it should be noted that staff anticipates that sewer separation will be the primary vehicle for achieving compliance. The implementation schedule reflects this understanding. However, complete sewer separation would impact businesses and residents, possibly producing economic impacts to the area. CSO Control Policy, Section II.C.5 does allow for appropriate cost/performance considerations to help guide the selection of controls. Therefore, it is also understood that if engineering controls that are less disruptive, yet just as effective are found to be the best option, then the implementation time frame could be reduced.

The Fact Sheet explicitly states that the LTCPU will also provide for combined sewer overflow controls to comply with all applicable water quality standards for the receiving waters (*EPA Guidance for LTCP, September 1995*), consistent with the Clean Water Act Section 402(q) and State Water Control Law.

EPA Comment:

Pg. 6 of 8, Part I E. 8.a, Combined Sewer Service Area Reduction Plan (ARP) requires the separation of storm and development projects whenever feasible. An estimated schedule should be provided and the whenever feasible statement be deleted.

DEQ Response:

The ARP is dictated by development/redevelopment within the CSS sewer shed area; thus, dependent upon the area's economic engine. This is a factor outside the control of the City. However, the City is required to submit any ongoing and proposed development projects and schedules annually that are occurring/would occur in the CSS sewer shed (Part I.E.8.a.).

The statement 'whenever feasible' has been removed.

**EPA Comment:**

Pg. 6 of 8, Part I E. 8.c, Green Public Facilities, A plan of the proposed city maintenance work and the options available for inclusion of green infrastructure projects should be presented. Remove feasible options shall be implemented.

**DEQ Response:**

The revised draft permit requires the City to submit: (1) a schedule of maintenance/enhancement projects at city facilities within the CSS sewershed for the forthcoming fiscal year; (2) the City's process for evaluating inclusion of green infrastructure; and (3) green infrastructures planned for selected projects with each annual report (Part I.E.8.c.).

The above 'feasible options shall be implemented' language has been removed.

**EPA Comment:**

Pg. 7 of 8. Part I E. 8.e, there is no schedule attached to the requirement to implement proposed improvements at outfall 003/004. A schedule with defined milestones to complete this work is required.

**DEQ Response:**

The revised draft permit requires the City to implement the final improvements at Outfall 003 and Outfall 004 thirty (30) months from the permit effective date. Additionally, the City is required to submit a Preliminary Engineering Report (PER) to DEQ for review and approval once the final alternative is selected and prior to beginning any improvements (Part I.E.8.e).

**EPA Comment:**

Pg. 7 of 8. Part I E. 9., Green Maintenance proposes a data base to track projects, again the delivery date is the end of the permit term. Interim milestones need to be established.

**DEQ Response:**

The revised draft permit requires the City to submit updates within 12 and 24 months of the permit effective date with a final report detailing the development and implementation of the database within 36 months of the permit effective date (Part I.E.9.).